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(54) Title: INDIRUBIN-TYPE COMPOUNDS, COMPOSITIONS, AND METHODS FOR THEIR USE

(57) Abstract: Compounds and compositions including 6-bromo-indirubin, 5-amino-indirubin and N-methyl-indirubins and related indirubin derivatives are provided that are useful as selective modulators of glycogen synthase kinase-3, cyclin-dependent protein kinases or aryl hydrocarbon receptors. Methods of inhibiting or modulating cell growth or cell cycling are provided using the compounds of the invention. In other aspects, compounds and methods for the treatment of protozoan-mediated diseases, Alzheimer's disease and diabetes are provided.

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